FACT SHEET

as required by LAC 33:IX.3109 for **major** LPDES facilities, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0020443; AI 30825; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** City of Bastrop
Main Plant
P.O. Box 431
Bastrop, LA 71221

II. **PREPARED BY:** Rachel Davis

DATE PREPARED: October 20, 2009

III. **PERMIT ACTION:** reissue LPDES permit LA0020443, AI 30825; PER20090001

LPDES application received: July 7, 2009

LPDES permit issued: January 1, 2005
LPDES permit expired: December 31, 2009

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Bastrop.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 1001 Henry Street in Bastrop, Morehouse Parish.

D. The treatment facility consists of an in-plant pump station, grit chamber, primary clarifiers, aerobic digesters, drying beds, rotating biological contractors, secondary clarifiers, sand filters, chlorination, and dechlorination.

E. Outfall 001

Discharge Location: Latitude 32° 46' 1" North
Longitude 91° 55' 28" West

Description: treated sanitary wastewater

Design Capacity: 1.8 MGD*

**The previous permit was based on a design capacity of 4 MGD. Based on a conversation with Joseph Fontenot on October 14, 2009 and the design specifications for the sewage treatment plant, the facility does not have a design capacity of 4 MGD the actual capacity is 1.8 MGD.*

Type of Flow Measurement which the facility is currently using:
Combination Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into Staulkinghead Creek, thence into Little Bayou Boeuf, thence into Wham Brake in segment 080912 of the Ouachita River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10), for the purpose of limit calculations, is 0.1 cfs based on a report from Todd Franklin dated July 22, 2009.

The **hardness value** is 149 mg/l and the **fifteenth percentile value for TSS** is 8 mg/l based on a report from Todd Franklin dated July 22, 2009.

The designated uses and degree of support for Segment 080912 of the Ouachita River Basin are as indicated in the table below[1/]:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
N/A	Full	Not Supported	N/A	N/A	N/A	N/A

[1/]The designated uses and degree of support for Segment 080912 of the Ouachita River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 080912 of the Ouachita River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 24, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Rachel Davis
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 080912, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 080912 was previously listed as impaired for dioxins, for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 080912:

Dioxin TMDL for Tisdale Brake, Staulkinghead Creek, Little Bayou Boeuf, Wham Brake and Bayou Lafourche for Subsegment 080912 and 080904

The TMDL states that sources of dioxins are formed primarily as unintentional by-products of incomplete combustion and various chemical processes. Although forest fires and possibly other natural sources may produce dioxins, these sources are small compared with anthropogenic sources. Dioxins are produced in small quanities during the combustion of fossil fuels, wood, municipal and industrial waste. Bleaching processes which were used in pulp and paper production produced dioxins, and they occur as contaminants during the production of some chlorinated organic chemicals, such as chlorinated phenols. Currently, the major environmental source of dioxins is incineration.

As a part of the TMDL report subsegment 080912 is a necessary assessment in order to address the primary source of dioxin in the watershed. The only identified point source pollutant loading of dioxin is the discharge into Staulkinghead Creek from International Paper's Louisiana Mill. Under its permit, IP monitors dioxin and controls the flow from Wham Brake to Bayou Lafourche.

This TMDL also states that since Tisdale Brake is located upstream of the only known source of dioxin, it would not be necessary to establish a dioxin TMDL specific for this waterbody. Based upon this information, no permit limits for dioxin are required in this permit.

As per LAC 33:IX.2707.L.2.a.ii, availability of information which was not available at the time of previous permit issuance and will justify the application of less stringent effluent limitations in the proposed permit constitutes an exception to LAC 33:IX.2707.L.1, which states when a permit is renewed or reissued standards or conditions must be at least as stringent as the final limitations, standards, or conditions in the previous permit. In the previous permit, this treatment facility was required to meet effluent limitations for total zinc of 0.6 lbs/day monthly average and 1.6 lbs/day daily maximum. A water quality screen was performed using data from the application and from DMRs from May 2006 through May 2009. The screen did not indicate a need for a limitation for total zinc. Therefore, the limitation for total zinc has been removed from this permit. See Appendix B-1 for more information.

OUTFALL 001

Interim Effluent Limits:

Interim limits shall become effective on the effective date of the permit and expire three years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	150	10 mg/l	15 mg/l	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.
TSS	225	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	60	4 mg/l	8 mg/l	Per EPA Region 6 Ammonia Toxicity concerns major sanitary dischargers are being limited to 4/8 at the edge of the mixing zone
Dissolved Oxygen		5 mg/l	N/A	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Hexachlorocyclo-hexane	Report	Report	Water Quality Screen indicated a need for a WQBL. See Appendix B-1 for additional information.

Final Effluent Limits:

Final limits shall become effective three years after the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	150	10 mg/l	15 mg/l	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.
TSS	225	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	60	4 mg/l	8 mg/l	Per EPA Region 6 Ammonia Toxicity concerns major sanitary dischargers are being limited to 4/8 at the edge of the mixing zone
Dissolved Oxygen		5 mg/l	N/A	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Hexachlorocyclo-hexane***	2.26×10^{-3}	5.38×10^{-3}	Water Quality Screen indicated a need for a WQBL. See Appendix B-1 for additional information.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD_5 and TSS in terms of concentration.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

***The above draft priority pollutant limits for hexachlorocyclohexane are based upon the evaluation of one effluent analysis. The permittee may conduct and submit the results of three (3) or more additional effluent analyses to either refute or substantiate the presence of the above toxic pollutant during the Draft Permit comment period. The additional analyses will be evaluated by this Office to determine if the pollutant is potentially in the effluent and if it potentially exceeds the State's water quality standard

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

4) Total Residual Chlorine

If chlorination is used to achieve the limitations for Fecal Coliform Bacteria, the effluent shall contain NO MEASURBALE Total Residual Chlorine (TRC) after disinfection and prior to disposal. Given the current constraints pertaining to chlorine analytical methods, No MEASURABLE will be defined as less than 0.1 mg/l of chlorine. Limits set in accordance with the Water Quality Screen (see Appendix B-1) and the previous LPDES permit.

5) Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, August 13, 2007, VERSION 5).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0039055, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival & reproduction test using Ceriodaphnia dubia (Method 1002.0)	**1/quarter**[1]
Chronic static renewal 7-day survival & growth test using fathead minnow (Pimephales promelas) (Method 1000.0)	**1/quarter**[1]

[1] Since a WET limit shall be incorporated into this permit, quarterly testing is required for the first five years following the effective date of the WET limit in the new permit. Following successful completion of this period with no demonstrated lethal or sub-lethal effects, a reduction may be appropriate.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be **31%, 41%, 54%, 72%, and 97%**. The low-flow effluent concentration (critical low-flow dilution) and WET limit is defined as 97% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act

X. PREVIOUS PERMITS:

LPDES Permit No. LA0020443: Issued: January 1, 2005
Expired: December 31, 2009

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
$CBOD_5$	10 mg/l	15 mg/l	2/week	6 Hr. Comp
TSS	15 mg/l	23 mg/l	2/week	6 Hr. Comp
Ammonia-Nitrogen	4 mg/l	8 mg/l	2/week	6 Hr. Comp
Dissolved Oxygen	5 mg/l	---	2/week	Grab
TRC	---	---	2/week	Grab
Fecal Coliform Colonies	200	400	2/week	Grab
Biomonitoring	Monthly Avg. Min.	7 day min.		
Pimephales promelas	Report	Report	1/quarter	24 Hr. Comp.
Ceriodaphnia dubia	Report	Report	1/quarter	24 Hr. Comp.

The permit contains pretreatment language.
The permit contains biomonitoring and a WET limit
The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following inspections were performed during the period beginning **May 2007** and ending **May 2009** for this facility.

Date: September 5, 2007
Inspector: John Posey
Findings and/or Violations:

1. Facility appears well-maintained
2. Effluent was clear
3. Records and reports were up to date
4. Sampling is performed by facility personnel. Analyses are done on-site
5. Approximately 200 gallons of sewage had overflowed from the collection line

B) Compliance and/or Administrative Orders

A review of the files indicates that no compliance orders have been issued against the facility

C) DMR Review

A review of the discharge monitoring reports for the period beginning **May 2007** through **May 2009** has revealed the following violations:

Period of Excursion	Parameter	Outfall	Permit Limit	Reported Quantity
May 2007	Ammonia Ammonia	001	4 mg/l 8 mg/l	8 mg/l 14 mg/l
June 2007	Ammonia Ammonia	001	4 mg/l 8 mg/l	8 mg/l 12 mg/l
July 2007	Ammonia Ammonia	001	4 mg/l 8 mg/l	7 mg/l 12 mg/l
November 2007	Ammonia Ammonia	001	4 mg/l 8 mg/l	7 mg/l 9 mg/l
December 2007	Ammonia Ammonia	001	4 mg/l 8 mg/l	8 mg/l 11 mg/l
January 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	10 mg/l 13 mg/l
February 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	6 mg/l 10 mg/l
March 2008	Ammonia	001	4 mg/l	10 mg/l
April 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	18 mg/l 19 mg/l
May 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	15 mg/l 22 mg/l
June 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	7 mg/l 10 mg/l
July 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	7 mg/l 10 mg/l
September 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	5 mg/l 10 mg/l
November 2008	Ammonia Ammonia	001	4 mg/l 8 mg/l	15 mg/l 23 mg/l

January 2009	Ammonia Ammonia	001	4 mg/l 8 mg/l	6 mg/l 13 mg/l
February 2009	Ammonia Ammonia	001	4 mg/l 8 mg/l	5 mg/l 10 mg/l
May 2009	Ammonia Ammonia	001	4 mg/l 8 mg/l	7 mg/l 17 mg/l

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.8 MGD.

Effluent loadings are calculated using the following example:

BOD: 8.34 lb/gal x 1.8 MGD x 10 mg/l = 150 lb/day

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **1.0** and **5.0** MGD.

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
BOD_5	2/week	6 Hr. Composite
Total Suspended Solids	2/week	6 Hr. Composite
Ammonia-Nitrogen	2/week	6 Hr. Composite
Dissolved Oxygen	2/week	Grab
Fecal Coliform Bacteria	2/week	Grab
pH	2/week	Grab

Pretreatment Requirements

Due to the absence of pretreatment categorical standards for the indirect discharges listed above or because the discharge is of sanitary wastewater only, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0020443. This language is established for municipalities that do not have either an approved or required Pretreatment program.

This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Bastrop, Main Plant, July 7, 2009.